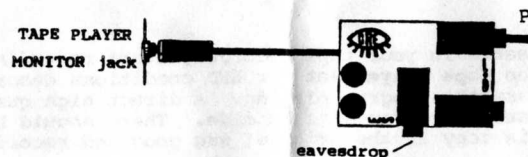


VI TAPE HEAD ALIGNMENT

The record-play "head" in your cassette machine picks up data from the magnetic track recorded on the tape. Poor alignment of the head with the track can cause LOADING problems from distortion of cassette data or low tape player volume. The importance of this problem is often overlooked, but it is a major cause of LOAD failures. If your tape machine comes with a tiny hole in the surface panel near the cassette insertion-removal door, or with a small notch in the panel at the cassette door opening, you can align your tape head to accurately track any cassette program. WINKY BOARD II LED monitors used as visual peak output indicators make it easy.

TAPE HEAD ALIGNMENT HOOK-UP



ALIGNMENT PROCEDURE

Your computer is not used. You can also use LOAD mode hook-up and your computer may be either on or off. Begin playing your data cassette. With a tiny screwdriver locate the little adjusting screw under the panel hole near the tape head or just behind the panel edge notch. Adjust this screw for maximum earphone volume and LED brightness. You may have to back off your volume control to avoid overdriving the LEDs. Rewind the cassette and LOAD. NOTE: There should be no alignment problems with cassettes SAVED and LOADED on the same tape machine unless the alignment was changed between SAVEing and LOADING a program.

SUGGESTIONS

Use only certified computer data tape cassettes such as Radio Shack #26-301. Keep tape machines and computer at least 15" away from your TV and fluorescent lights to avoid picking up electrical interference.

If you still have SAVE or LOAD difficulties, try using a tape head demagnetizer and clean the tape head with a cotton swab wet with alcohol. If these remedies fail, there may be a defect in your equipment. Try another tape machine, computer and ram pac. Remember that some commercial cassette programs can be poorly recorded and almost impossible to load. Return them for exchange.

Although WINKY BOARD II is a sturdy open board device, avoid rough handling. Handle by board edges. Don't apply sideways pressure on the components when manipulating jack plugs. Store in its plastic box when not in use.

If you have any questions or comments, please contact us.

G. RUSSELL - ELECTRONICS

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WINKY BOARD II

Cassette-Computer Interface

INSTRUCTIONS

PATENT PENDING

WINKY BOARD II is a versatile open board cassette machine-computer interface unit designed for TS1000 and ZX81/80 computers. Not only will it solve most LOAD and SAVE problems, but it will let you DUPLICATE any TS/ZX cassette program; even unLISTable, unSAVEable cassettes. You can even LOAD and DUPLICATE simultaneously. Or SAVE a program on two tapes at once. No electrical power or computer modifications are required. WINKY BOARD II won't block your ram pac connector because it plugs into your tape machine and computer jacks.

WINKY BOARD II SYMBOLS (refer to LOAD HOOK-UP diagram)

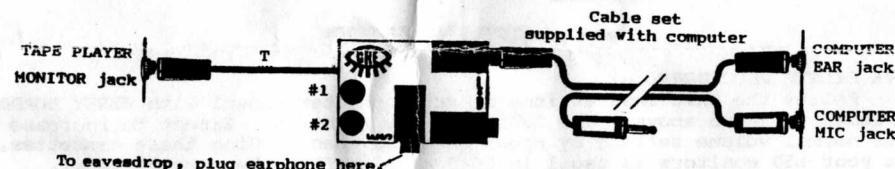
- "L" - LOAD jack
- "D" - DUPLICATE jack
- "ES" - Earphone and SAVE jack
- #1 & #2 - LED monitor lights
- "T" - tape machine cable
- "P" - loose plastic jack plug

I. LOAD MODE

LOADing with WINKY BOARD II lets you

- 1) Find optimum tape volume fast for any cassette with LED monitors
- 2) Earphone-eavesdrop while playing, LOADING or DUPLICATEing without manipulating cable plugs and tape volume control.
- 3) Filter LF electrical interference for easy LOADING.

LOAD HOOK-UP



NOTE: Your tape machine MONITOR jack may be labeled OUTPUT, EAR, EARPHONE

LOAD PROCEDURE

Set your tape player tone control high and volume low. Start playing your cassette and advance the volume. With your earphone, you will hear any verbal introductions and when the program data starts playing, advance the volume until LED #1 lights up brightly and LED #2 barely lights. Stop. This is the volume setting for best LOADING. (With some tape machines LED #2 won't light even at high volume levels. For this type of machine set your volume control so that LED #1 barely lights. For either kind of machine, this setting should be near 3/4 of maximum or about 7 on your volume dial. The setting will vary with different cassettes.) Leave WINKY BOARD II in place, rewind the cassette and--without adjusting the volume--LOAD as your computer manual directs.

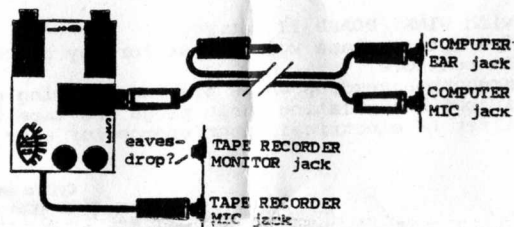
This method should give a successful LOAD every time unless strong high frequency ram pac "noise" was recorded with your SAVED program. WINKY BOARD II LOAD filter won't cut this particular interference. For this problem, refer to the next mode.

NOTE: WINKY BOARD II includes LED blowout protection, but for maximum life and accuracy avoid excessively high brightness levels for more than brief intervals.

II SAVE FILTER MODE

When SAVEing a program, some Timex or Sinclair 16K ram pacs can add HF electrical interference to the cassette that can make LOADING difficult. There is a simple test: If, while LOADING a program at normal volume levels, flashing streaks or lines appear in the stable grey TV screen pattern during the five second "silent" period just prior to the program data, then the cassette program was SAVEd while using a "noisy" ram pac. This interference will not be generated and recorded during SAVEing if the noisy ram pac is disconnected and the internal 1 or 2K ram is used. LOADING problems depend upon the strength of this recorded interference. With WINKY BOARD II SAVE filter, when you SAVE programs the recordings can be virtually free of this interference and easy to LOAD. Results achieved will depend upon the kind of cassette recorder, tape, and particular Timex or Sinclair 16K ram pac you are using. Some cassette recorders include a filter and won't record ram pac noise. Don't use SAVE FILTER MODE with this kind of machine because the excess filtering may cause poor recordings. Notice that only in this mode is the "L" jack unplugged.

SAVE FILTER HOOK-UP



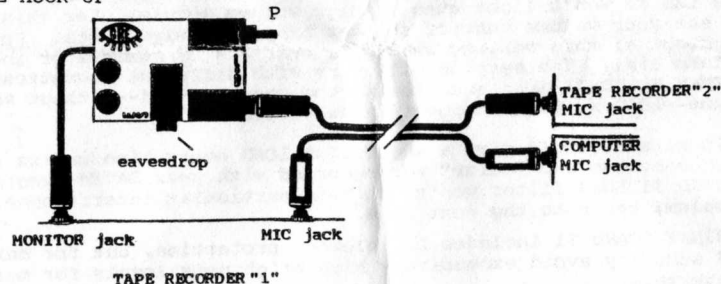
SAVE FILTER PROCEDURE

Follow the SAVE instructions in your computer manual with WINKY BOARD II included as shown above. The LEDs will not light up. Expect to increase your normal volume setting by about one step when LOADING these cassettes. Use your LED monitors as usual in LOAD mode to find the correct level.

III DOUBLE SAVE MODE

WINKY BOARD II lets you SAVE a program on two cassettes at once using two tape recorders. One of the recorders must pass this test: while SAVEing a program normally and using your earphone plugged into your tape machine MONITOR jack, you should hear a loud to medium loud sound of the program data being recorded. Call this recorder "1" in the following hook-up diagram. Notice that in this mode, the loose plug "P" included with your WINKY BOARD II must be plugged into the "L" jack.

DOUBLE SAVE HOOK-UP



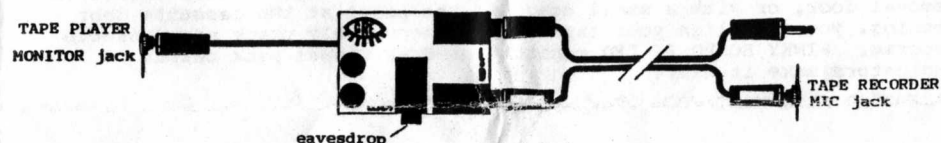
DOUBLE SAVE PROCEDURE

Insert a blank cassette in both recorders. SAVE your program as your computer manual directs, but run both recorders simultaneously.

IV DUPLICATE MODE

With WINKY BOARD II you can easily duplicate any cassette program by direct copying from one tape cassette machine to another. Your computer is not used in this operation.

DUPLICATE HOOK-UP



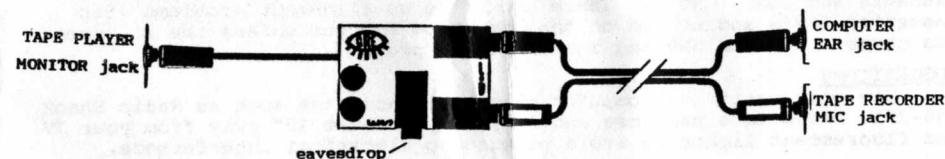
DUPLICATE PROCEDURE

With a blank cassette in your tape recorder, start recording. With the volume level of the tape player set for LED conditions described for LOADING, start your cassette program playing. A direct high quality recording of your cassette program will be made. There should be no difficulty LOADING this copy if the original was good and recorded free of loud ram pac noise.

V SIMULTANEOUS LOAD AND DUPLICATE MODE

You can duplicate your cassette program while you are LOADING with WINKY BOARD II.

HOOK-UP



PROCEDURE

Insert a blank cassette in your tape recorder. Start your tape recorder before you LOAD and you will LOAD and DUPLICATE your program at the same time.